Table 1. Descriptive data for patellar mobility.

Patellar Mobility	Male	Female	P Value (95% Cl)
SPD (mm)	14.3 ± 4.0	13.7 ± 3.5	.29 (0.41, 1.64)
IPD (mm)	16.5 ± 3.3	15.4 ± 3.7	.02 (0.17, 2.11)
PL (mm)	54.5 ± 5.2	48.6 ± 4.2	.01 (4.58, 7.20)
SPMI (%)	26.6 ± 8.0	30.6 ± 6.9	.82 (-3.97, 0.29)
IPMI (%)	28.4 ± 7.4	31.9 ± 8.3	.13 (-3.38, 0.83)

SPD, superior patellar displacement; PL, patellar length; SPMI, superior patellar mobility index [(SPD ÷ PL) × 100]; IPD, inferior patellar displacement; IPMI, downward patellar mobility index [(IPD ÷ PL) ×100. Values are mean ± Standard deviation.

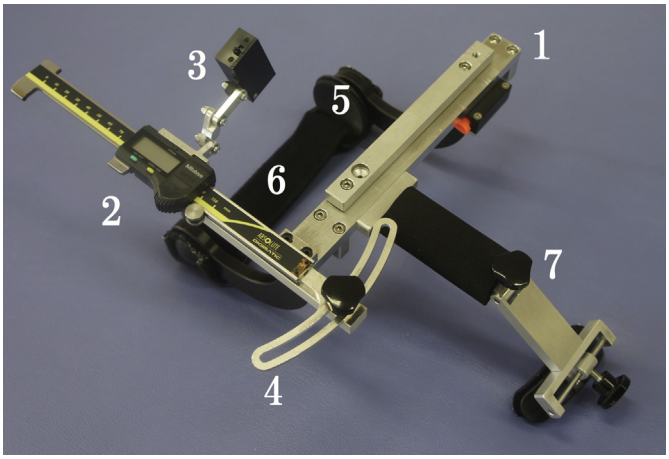

Fig. 1. Components of patellofemoral arthrometer: (1) base, (2) digital caliper, (3) adjustable laser module arm, (4) plane adjuster, (5) clamping mechanism, (6) thigh strap, and (7) fixed arm.

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DO ADDITIONAL PROPRIOCEPTION EXERCISES TO STABILIZATION EXERCISES HAVE MORE BENEFICIAL EFFECTS ON PAIN, MUSCLE STRENGTH AND FUNCTIONALITY IN CHRONIC LOW BACK PAIN?

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Purpose: This study has been carried out to investigate the efficacy of proprioception exercises in addition to stabilization exercises on pain intensity level, muscle strength and functionality in patients with chronic low back pain.
Methods: 16 female and 14 male, a total of 30 patients with chronic low back pain have been recruited in this study. They have been divided into two similar groups as Group 1 (n_1 =15) and Group 2 (n_2=15). Their mean age was 33.4±13.6 years for Group 1 and 31.3±11.3 years for Group 2. Previous surgery, acute disc diseases, rheumatic diseases, metabolic diseases, spinal stenosis, enfections, vertebral fractures and malignancy were the exclusion criteria. Patients in Group 1 (Stabilization Group) have been treated with stabilization exercises while patients in Group 2 (Stabilization+proprioception) have got proprioception exercises in addition to stabilization exercises in their rehabilitation program. Visual Analogue Scale has been used to measure pain intensity level and Oswestry Functional Scale for assessing functional level of the back. Their back and abdominal muscle strength had been analysed with Biodex System Pro 3 Isokinetic System. Treatment period for the both groups was 6 weeks with 3 sessions per week.
Results: There was significant pain relief in resting and activity for the both groups after the treatment, but the differences between the groups were not significant. Both groups had obvious improvements in peak torque and average peak torque values of trunk flexors and extansors after the rehabilitation. Peak torque/ body weight both for flexors and extansor have increased in Group 1. Group 2 has showed significant improvement in peak torque / body weight value for the flexors, but not for the extansors. There were no significant differences in various flexor and extensor muscle strength values between the groups. Group 1 and Group 2 have showed singificant improvements in their functional level after the treatment. The functional score was 3.9±2.9 points for the Group 1 (before: 7.7±2.7 points) and, 3±1.3 points for the Group 2 (before: 8.9±3.1 points) after the rehabilitation. However, The groups did not differ significantly for it (p> 0.05).
Conclusions: The effects of stabilization exercises and stabilization+ proprioception exercises have been found similar. Each of them have beneficial effect in rehabilitation of chronic low back pain. Although both exercises can be used to relieve pain, to increase muscle strength and to enhance back functions for the patients with chronic low back pain, the future studies will be needed to clarify the additional effects of proprioception.

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IMMEDIATE EFFECTS OF DIFFERENT ELASTIC TAPING TECHNIQUES ON PAIN, ISOKINETIC MUSCLE STRENGTH, PROPRIOCEPTION AND FUNCTIONAL PERFORMANCE IN PATIENTS WITH KNEE OSTEOARTHRITIS: PLACEBO CONTROLLED, DOUBLE-BLINDED CROSS STUDY

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Purpose: Purpose of this study was to determine the immediate effects of two different elastic taping techniques on pain, proprioception, isokinetic muscle strength and functional performance in individuals with knee osteoarthritis.
Methods: Twenty-four female patients ages between 42-64 years were diagnosed with bilateral knee osteoarthritis included in this study. The protocol consisted of assessing same patients in four conditions which were without taping, placebo taping, Kinesiotaping and Dynamic Taping with 3 days interval. Pain intensity was evaluated by using visual analog scale (VAS) before taping, twentieth minute after taping and after stair ascending and descending. Quadriceps isokinetic muscle strength was tested with Biodex System 3 dynamometer at velocities of 90°/s, 120°/s and 180°/s. Patients' knee proprioception was assessed at 30°, 45° and 65° and functional performance of patients was evaluated with 50m walking, stair ascending and descending, timed up and go and 5 repeated sit down-stand up tests. All measurements were taken with 3 days interval in the same turn and at the same time of the day by a physiotherapist who was blinded to the applications.
Results: No difference was found at peak torque and total work of three angular velocities (90, 120 and 180°/s) (p>0.05). Results of pain intensity, functional performance and knee proprioception were similar for every each conditions (p>0.05).
Conclusions: Kinesiotaping and Dynamic Taping had no negative immediate effects on pain, muscle strength, proprioception and functional performance in knee osteoarthritis.

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OBJECTIVE AND SUBJECTIVE CLINICAL OUTCOMES FOLLOWING ANKLE FRACTURE: DIFFERENCES BETWEEN FRACTURE CLASSIFICATION AND CONTROLS

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Purpose: Ankle fractures are one of the most common injuries of the lower limb. There is, however limited information regarding differences in gait patterns and clinical symptoms between fracture severity classifications. The purpose of the current study was to examine objective and subjective differences between three severity groups of ankle fractures patients compared to healthy controls.
Methods: This was a case-controlled prospective study. 92 patients with an ankle fracture injury of which 41 patients were eligible to participate in the study. 24 healthy people served as controls. All patients underwent a computerized gait test, completed self-assessment questionnaires (The Foot and Ankle Outcome Score (FAOS) and the SF-36), evaluated with the American Foot and Ankle Score (AOFAS)